

ART. XI. *A Treatise on the Diagnosis and treatment of the diseases of the Chest.—Part I. Diseases of the Lung and Windpipe.* By WILLIAM STOKES, M. D., M. R. I. A., &c. Hodges & Smith: Dublin, 1837.—8vo. p. 557.

Dr. Stokes is well known to the profession in this country from his excellent course of lectures on the practice of medicine, which were fully analysed in some of the preceding numbers of this Journal; and is eminently distinguished for the successful efforts which he has made to render the study of disease more precise, and to diffuse a more general taste for those physical means of investigation which have so much increased our knowledge of diagnosis. The school of Dublin is largely indebted to his efforts, and to those of his colleague, Dr. Graves, for its celebrity, and it is now amongst the most deservedly celebrated in Europe, and in some respects superior to any in the British Islands.

The present work is the first part of a treatise which, when completed, will embody the most important facts known relative to the diagnosis and treatment of thoracic disease; and is the more valuable on account of the long-continued personal observation of Dr. Stokes, which has enabled him to verify, and carefully to sift the facts announced by the continental observers, as well as to add a considerable quantity of original matter. There is no other work so rich in the details—none, in which the new truths in physical examination discovered by Laennec and his successors, are set forth so concisely and at the same time in so intelligible and useful a manner. The works previously published are either so diffuse that the more valuable materials are too deeply concealed for ordinary use, or they are too much abridged, retaining more or less of the character of manuals.

The diagnosis of pectoral diseases is now so well understood that a reviewer may very properly confine himself to the slender task of pointing out the few facts of a novel character that a writer has been enabled to add to the number already possessed by the science. But while we shall endeavour to indicate the additions which medical science has received from the labours of Dr. Stokes, we shall venture still farther, and will not refrain from calling the attention of our readers to what may perhaps be already familiar to them. It is not enough that a fact is true, or that it is admitted by those who have had the inclination and the means of verifying it; a large class of readers are slow to believe what is new, or perhaps hesitate to receive the best founded opinions, because they are not familiar with the evidence necessary to conviction. In the latter case, the hesitation is well founded, and can only be overcome by a patient and thorough examination of the subject, or by that slower and almost insensible process by which we arrive at many truths; that is, the frequent representation of facts under so many and different forms that the judgment is convinced without an effort of attention.

A treatise on physical diagnosis is useful on other grounds. The signs of thoracic disease do not change, but from year to year their cause is better understood, and the connexion between them and the

general symptoms is better defined. These changes can only be pointed out by the occasional appearance of a work on the subject, and that they are considerable, we may perceive by comparing the work of Dr. Stokes with the first or even with the last edition of Laennec. The diagnosis and even the pathology of diseases of the chest cannot become free from difficulty until the physical means of explanation are completely blended with our ordinary methods of examination, and regarded simply as the key to a particular set of symptoms. Hence we perceive that the most recent investigations of these affections lay less stress upon the physical signs; not that they are less true, but because their existence is assumed as a fact which every one may verify, and because they are so evident that they may serve as a starting point for other and more difficult researches.

Excellent as the work of Dr. Stokes will be found, it perhaps falls a little short of our expectations in this respect, scarcely inviting sufficient attention to those general symptoms which make up so much of the pathology of disease. Still it would be unjust to reproach one who has done much and that well, with not doing more; this sort of imperfection is inherent in our ablest productions, and it is no small praise of a work, that its merits are such as to give us greater cause to regret an imperfect developement of certain portions of it, than reason to complain of the inaccurate or unscientific mode of treating the subjects which are most fully illustrated. But we cannot avoid stating that the relative importance attached to the physical means of explanation is too great; they are brought forward into too strong a light, while that nicety of observation of particular symptoms and refined calculation of probabilities which indicate the higher degrees of skill in diagnosis are rather thrown into the shade. We may venture to speak thus, because we fully appreciate the utility of physical exploration after years of constant familiarity with its various methods, and are convinced of their accuracy and ready applicability to all cases of thoracic disease.

This warm partiality for physical investigation which we criticise in Dr. Stokes is, perhaps, a result of the school in which he was educated, and of the course which he has pursued. As a pupil of Laennec, he was naturally led to devote his efforts to the diffusion of a knowledge of those means of investigation which were then received coldly, or looked upon as completely deceptive. In conjunction with Dr. Graves, the author published, what at the present day would seem unnecessary, a statement of cases, to prove that auscultation was, in reality, founded upon observation, and that the physical signs correspond to fixed pathological changes. Since Dr. Stokes's return to Dublin he has been constantly engaged in the duties of instruction, and especially in diffusing amongst his countrymen a knowledge of pathology and of organic medicine which have led to such brilliant results in the hands of some of the French pathologists. These pursuits have rendered him one of the most able pathologists and accurate observers of our times; but they have not led him to push his inquiries into those portions of pathology which are comparatively little known; they have made him a teacher rather than a discoverer.

The school of Dublin is, in some measure, marked with the same peculiarity. It teaches admirably pathology as it is known, and has one advantage over most continental schools in possessing a system of therapeutics more in accordance with the views generally received in this country; but it is certainly inferior to the Parisian school in that intimate knowledge of pathology and active spirit of research which must, ultimately, prove the only certain means of increasing our knowledge of exact medicine. This apparent deficiency is probably the necessary consequence of the small number of observers who are interested in prosecuting medicine as a science, with but a slender expectation of ultimate pecuniary reward. In this respect the British Islands resemble the United States, and will probably never present the spectacle, so frequent in France, of men of mature age, and high scientific endowments, resisting the temptations of private practice to devote themselves to the patient, laborious, and in a pecuniary way, profitless pursuits of medical science. Such will ever be the case in those communities in which, fortunately for mankind, commerce and manufactures offer large rewards for the employment of capital, and, indirectly, rather obstruct pursuits in which an immediate advantage is not presented.

The introductory chapters, relative to the method of physical examinations and the explanation of the chief pathological changes on which it is founded, are interesting; but as they are necessarily more or less familiar to most of our readers, we shall pass at once to the examination of the author's remarks upon individual diseases.

Bronchitis is sometimes regarded as one of the most easily understood of all the affections of the chest. The word is used as synonymous with catarrh in its acute and simple form, but it is also employed by practitioners on numerous occasions as a convenient cloak to conceal their ignorance of the real mischief that is going on in the lungs. Hence we hear the term bronchitis applied to phthisis, to various chronic diseases of the larynx and trachea, and even to chronic pharyngitis. These applications of the word are so far right, that few diseases of either the membranes or the substance of the lungs can long continue without the supervention of bronchitis. But in such cases the term bronchitis is used in so general a signification, as to lose all precision. For practical purposes the disease strictly deserves the title when it is so important as to give rise to decided symptoms, or even to threaten the life of the patient; and we should endeavour to distinguish such cases from the mass of ill defined affections with which they are often confounded. Such a separation involves great difficulty, and we fear that even the acknowledged ability of Dr. Stokes has not quite removed it.

Dr. Stokes alludes to a fact with which we have been often struck; that is, the greater simplicity of disease which is discoverable by more accurate anatomical investigations. Successive founders of systems of medicine, attempt to reduce all diseases to the same general laws of development and treatment. The rapid succession of those systems has shown their emptiness. Such will ever

be the case with all systems that are based upon similar data; for, before we simplify and form general laws, we must discriminate and analyze. The only truly general laws in medicine are, therefore, those which have been deduced from a very laborious and patient separation of the phenomena of disease into such minute subdivisions as may even appear puerile to those who do not comprehend their ultimate object. But where these distinctions are more clearly made, and stand in bold relief from the confused mass of symptoms, which our ordinary observation discovers, we are struck with the beauty and harmony of the laws of nature which gradually bring together these scattered elements, and reduce to order a confused mass of minute and seemingly unimportant details. What should we now know of the history of tuberculous diseases more than our predecessors have known, if we had not sought for their anatomical characters, not merely in the lungs, but in all the viscera in which this morbid deposit may present itself? The inflammation of the mucous membrane of the lungs will probably be thus simplified; but its shades are so numerous, and occur under such varied circumstances, that we cannot but object to the vague manner in which the term is at present employed.

Dr. Stokes has well described the more important forms of bronchitis, but he has not been sufficiently precise in pointing out their distinctive characters; nor is the gradual passage of one form into another, always indicated with so great a richness of detail as to enable the pupil to seize its characteristic features. The deficiency, however, is perhaps less attributable to the author than to the imperfection of our knowledge, which will require the contributions of several successive observers before the study of thoracic pathology becomes complete.

Acute bronchitis is pretty well understood as to its signs and ordinary course; little can be added to the descriptions already possessed of the acute form of the disease, except as to some modifications of the physical signs. We are not entirely of the opinion of Dr. Stokes, that the percussion is not rendered more dull in severe bronchitis; for if the smaller tubes be inflamed to any great extent, an experienced and delicate touch will discover a slight dulness. Some degree of skill and some acuteness of sense are necessary to render this sign very appreciable; but nevertheless, it has a certain value for those who are sufficiently skilful in physical exploration. We attach some importance to it on account of its early occurrence in those varieties of bronchitis which are afterwards complicated with phthisis, especially the miliary acute phthisis, or the tuberculous infiltration; both of which varieties often occur in the lower lobes of the lungs instead of following the usual law of previous development in the upper lobes. The rhonchi afford the most constant physical signs of bronchitis; if they are absent for a time, a forcible inspiration, which drives the air into the smaller tubes, may reproduce them: but this does not always succeed; so that cases of bronchitis are now and then met with in which no rhonchus can be

detected. This absence of rhonchus may depend upon various causes; chiefly on the limitation of the inflammation to the largest tubes, which do not obstruct the passage of the air unless they are blocked up by copious secretions.

The general conclusions of the author as to the pathology of acute bronchitis are the following:

"1st. That in almost all cases percussion gives no direct sign.

"2nd. That an accumulation of mucus in the inferior portions of the lung may give a certain degree of dulness.

"3d. That in the great majority of cases, in which there is a coexistence of the signs and symptoms of bronchitis with dulness, we may infer the existence of some disease, either of the parenchyma or of the pleura.

"4th. That conversely, the absence of dulness with the existence of irritation of the lung, gives a great probability that the case is one of simple bronchitis.

"5th. That a copious effusion of muco-purulent matter may exist in the bronchial tubes, without perceptible dulness of sound on percussion.

"6th. That in certain cases of bronchitis with effusion, a metallic sound may be produced on percussion. This is somewhat similar to the *bruit de pot fêlé* of caverns, but it is to be distinguished from it by the clearness of sound, its greater diffusion, and the absence of the stethoscopic signs of a cavity.

"7th. That in many cases, on application of the hand, a distinct vibration is felt in accordance with the motions of respiration.

"8th. That the modifications of respiration, as observed by the stethoscope in bronchitis, seem to be connected with mechanical obstruction more or less complete, and which may proceed from one or all of the following causes: turgescence or hypertrophy of the mucous membrane, the existence of various secretions, and lastly, the occurrence of a spasm.

"9th. That in the mode of occurrence of the various phenomena there are the greatest possible differences in different individuals.

"10th. That as a general rule it may be stated, that the more intense the sonorous, sibilous, or mucous *râles*, or any combination of them, be during ordinary respiration, the more severe may the disease be considered.

"11th. But that in certain cases of intense bronchitis of the minuter tubes, the sounds during ordinary respiration cease to be a measure of the intensity of disease, as they become louder during the convalescence of the patient.

"12th. That in the secretive stage of bronchitis the mucous rattle may occur, on the one hand, with large and isolated bubbles, and on the other, may pass into a *râle* almost crepitating, the sound on percussion still continuing clear.

"13th. That in consequence of bronchial inflammation, the entrance of air into a certain portion of the lung may be prevented, under which circumstances the signs are nullity of respiration, with persistence of clearness of sound.

"14th. That this obstruction may result from an organic change of the mucous membrane, or from the plugging up of the tubes by their own secretion.

"15th. That in the first of these cases the absence or diminution of the respiratory murmur is permanent, while in the second it may be temporary, and removable by a fit of coughing; yet even in this case, the obstruction by a concrete mucus has continued from the period of its occurrence until the fatal termination.

"16th. That if, in a case of mucous catarrh, a certain dyspnoea supervenes, with absence or diminution of the respiratory murmur in a particular portion of the lung, this portion also preserving its clearness of sound on percussion, we may make the diagnosis of obstruction of the bronchial tube by its own secretion."

Acute secondary bronchitis very properly claims the author's attention. After mentioning its frequent occurrence in typhus and

typhoid fever, (by the way, not distinguishing between the former disease and the latter as described by Louis,) he speaks of the frequent and early occurrence of bronchitis in the exanthemata. This complication establishes a strong degree of resemblance between these affections and the continued fevers, in which an eruption occurs upon the skin, although less evident than in the strictly exanthematous diseases. It is asked whether these inflammations are especially distinct from the same diseases occurring in the idiopathic form. We cannot positively answer this query, although we investigated the subject with extreme care at the Children's Hospital of Paris, a few years since. We, however, then ascertained that there are two distinct forms of inflammation of the air passages; one of which may be considered as specific, and is caused either by the cutaneous irritation extending directly to the mucous membranes, as often happens in small-pox and scarlatina, in which the fauces, larynx, and even the bronchi are thus affected; or else there is a sort of metastasis of diseased action, in consequence of the eruption not appearing fully on the exterior of the body, or arising from the extreme violence of the disease, which prevents the eruption from being limited to the exterior. Now in these cases, the inflammation is certainly specific; it is analogous to, and sometimes identical with the cutaneous eruption. This variety of bronchitis is totally independent of treatment. But there is another variety which is scarcely specific, and which differs in the various exanthemata. Each of these fevers has a peculiar election for the portions of the mucous membrane that is inflamed; measles attacking the smaller tubes, and often extending to the parenchyma of the lungs; scarlatina affecting the larger bronchi; while variola is much less constant in its laws. Now this secondary bronchitis, which is not always present, usually occurs quite late in the disease, is neither regular in its progress, nor peculiar in its symptoms, but resembles other forms of the disease occurring after febrile affections. It is much more amenable to treatment than the last mentioned variety; although still a dangerous affection from its obstinacy, and aptness to terminate in lobular pneumonia, or tuberculous disease. As measles are most frequently attended by secondary bronchitis, it is more necessary to watch children after the entire cessation of this disease, than after their recovery from the other exanthemata.

Physicians are often consulted for an obscure form of disease, which excites the solicitude of patients, and induces them to suspect the developement of pulmonary consumption. It is a constant cough, not always attended with fever, and in the majority of cases, is without the emaciation and general disorder of the economy which characterize the tuberculous disease. The chest, on examination, will be found free from the signs of phthisis, or even of bronchitis; sometimes the latter affection exists in so slight a degree as not to account for the obstinacy of the symptoms. The cough is usually slight, and followed by no expectoration, but sometimes it is extremely loud and even shrill, much more sonorous than in genuine bronchitis. These cases constitute the chronic secondary bronchitis of our author and may be readily distinguished by one familiar with the physical means of exploration.

If the signs of local disease be not sufficient to account for the cough, we are at once sure that the real seat of disease is not in the chest, but in a distant organ. Our diagnosis is rendered more certain by attending to the peculiar characters of the cough, which certainly differs from that of ordinary pectoral diseases.

We must here avoid an error which proves seriously injurious to the well being of the patient, and the reputation of the practitioner, viz: that is, many varieties of chronic cough may exist for a certain time, without positive disease of the lungs, but afterwards an important organic change in this organ be developed; sometimes as a direct consequence of the same disorder which gave rise to the secondary cough. This is especially true with respect to tuberculous disease of the lungs which often follows a slight cough, and other disordered functions of various organs. Hence, even when we are perfectly sure that the lungs are not actually diseased, we must take care not to overlook the first indications of that general tuberculous disease which may not yet have given rise to serious pulmonary disorder. The knowledge of the physician is here tested more severely than in almost any other point in pathology.

We shall pass over the author's judicious remarks on the treatment of bronchitis, and on the pathology of emphysema, chronic lesions of the bronchial tubes, and the diseases of the larynx.

Pneumonia is regarded by Dr. Stokes as differing from bronchitis merely in the addition of inflammation of the parenchymatous tissue which introduces a new anatomical element, but not a new disease. If the author had restricted his opinion to certain varieties of bronchitis and pneumonia, we should not have differed with him; but we cannot believe that because the tissue of the lungs is, in a great degree, composed of minute bronchial tubes, every kind of pneumonia is little else than a bronchitis of the minute tubes. In fact, as we have already stated, the varieties of bronchitis are so numerous that we can scarcely speak of it as one single affection; these varieties do not depend exclusively upon anatomical structure, but are in a great degree produced by difference in individual constitution, and by epidemic influences. Bronchitis, therefore, of an active inflammatory nature, is so closely connected with pneumonia as to pass into it by a gradation which is quite insensible; while the bronchitis of debilitated subjects is rarely connected with parenchymatous inflammation, and almost never shows a disposition to pass into that active state of inflammation which is almost characteristic of genuine acute pneumonia. The latter disease sometimes evidently commences in the cellular tissue itself; or, at least, its connexion with the smallest bronchial tubes is only secondary, and is confined to a limited portion of the lung. It is this kind of pneumonia which may follow external injuries, and be often unattended with expectoration. A remarkable case of this occurred under our observation a year or two since, in a young girl, who was wounded by the accidental discharge of a gun. Several shot passed into the lungs, crepitant rhonchus, bronchial respiration and dulness of percussion followed; but there was no expectoration.

The author admits a stage of pneumonia previous to the first stage as described by Laennec; in which we agree completely with him, although some of his deductions are not founded on genuine pneumonia. In a case of death from extensive burn, the tissue of the lung presents the same bright red arterial tint observable in certain cases of acute phthisis. Although this bright arterial redness, which we have often observed, is in some cases dependant upon real inflammation, it appears at other times independent of it, and accompanies cases of hæmoptysis from exhalation. The diseased action is hemorrhagic, rather than inflammatory. This opinion seems confirmed by the phenomena of inflammation in other tissues, where the tint even during life is less florid. When the first stage of inflammation was really found, the redness, although intense, was never so bright as in cases of hæmoptysis. This stage of inflammation probably occurs before liquid is effused into the smaller tubes, and therefore, as Dr. Stokes remarks, it is really antecedent to the first stage of pneumonia admitted by Laennec.

The signs of the earliest stage of pneumonia, that is, where no crepitant rhonchus has yet been heard, are stated to be obscure. There is the same obscurity in that rare variety of pneumonia in which the crepitus is entirely wanting throughout its whole course. We have had an opportunity of carefully examining this point in a number of cases, and the following are the conclusions derived from these observations:

1st. That when the pneumonia was superficial, a very fine crepitant rhonchus occurred very early, and was in reality the *first* physical sign. The early occurrence of the crepitus in such cases is readily understood from the anatomical structure of the lungs. At their surface the vesicular portion is found with the most minute bronchial ramifications; now, this tissue is the seat of the crepitant rhonchus, and where it is inflamed while the adjacent portions remain so healthy as not to obstruct the passage of the air, the crepitus is heard very early, perhaps it is sometimes produced before the least secretion of liquids, and may arise merely from the increased dryness and stiffness of the air cells. When the lung around the larger tubes is inflamed while the superficial pulmonary tissue is still sound, a different course is observed.

2nd. In the latter cases the first change is undoubtedly a modification of respiration, which we call rude or rough; that is, an increase of the blowing sounds during inspiration and expiration. The respiration may also be puerile, as stated by Dr. Stokes; that is, the roughness of the sound may be attended with a noisy vesicular expansion; or, the natural vesicular murmur may be even enfeebled, and the increase in the blowing sound alone indicate the obstruction to the passage of the air. These alterations in the sound of respiration occur very constantly in adults, and in children who are sufficiently old to present the regular form of pneumonia so frequent in adults; in younger children, who offer a different variety of this disease, the alterations of the respiration are nearly the same if the pneumonia be not preceded by bronchitis. In the latter case, the rhonchi are

so loud as to obscure the slighter alterations of sound. In all such cases, the simultaneous occurrence of fever and other symptoms more immediately connected with the respiratory system render the local signs of more value. Amongst the general signs, is to be classed the extraordinary prostration of the system, characteristic of pneumonia, and pointedly distinguishing it from ordinary pleurisy.

The description of the signs of pneumonia in the second and third stage are detailed by the author with the accuracy we might expect from one of the most skilful auscultators of the day. The absence of bronchial respiration in many cases in which the lung has passed to the third stage of inflammation is pointed out, and is explained by the very general solidification of the lung, which prevents motion in the side affected; so that a current of air is not driven through the bronchial tubes with sufficient rapidity to produce the bronchial respiration. This explanation is not entirely satisfactory; for if the pneumonia be most advanced at the base of the lung, the bronchial respiration ceases very soon, even before the third stage occurs; the tubes are there comparatively small, and readily obliterated by the tenacious mucus which blocks them up in the advanced stages of those affections; the air is thus completely excluded, and no sound occurs during respiration.

Typhoid pneumonia is a very interesting form of disease, which is frequent in Dublin, and at times prevails in this country. Dr. Stokes considers typhoid pneumonia as an inflammation of the lung, occurring in individuals of impaired constitution and under certain *epidemic constitutions* depending upon unknown causes. Besides this form, which is the type of the disease, the author classes under the same head the varieties of acute pneumonia which occur during the course of typhus and typhoid fever, as well as in phlebitis, delirium tremens, erysipelas, or diffused cellular inflammation. This classification is rather too general, as the pneumonia attending phlebitis or consequent upon operations and extensive suppurating surfaces differs much from the other varieties. In other respects there is an apparent analogy in these forms. Nor is this to be wondered at, for the same low, depressed state of system exists in all those cases, and may either give rise to the ordinary anatomical characters of pneumonia with merely a difference in symptoms, or to a disease which presents a different pathological state, and is rather disposed to pass into gangrene than to secrete either lymph or pus.

As a general rule, the local signs of pneumonia, when it occurs as a secondary lesion during the course of febrile affections, or as a primary disease of low action, constitute the only sure means of distinguishing it; for the cough and pain are slight, or wanting, and the general symptoms are either confounded with those of the primary disease, or are obscured by the feebleness of the patient. Still, even the local signs differ from those of ordinary pneumonia, and we rarely meet with the decided bronchial respiration or quickly formed dullness of the acute disease. The rhonchi are more humid, and this disease is much more slow in resolution, passing frequently into tuberculous degeneration of the lung or gangrene, and is occasionally

followed by rapid softening and the formation of a large cavity without the presence of tubercles.

The observations relative to the treatment of pneumonia are highly judicious, and show that Dr. Stokes's zeal for pathology has not led him to neglect the all important subject of therapeutics. It requires some thought, and a certain habit of exact yet enlarged analysis, conjoined with the most expert and attentive observation to ascertain the best method of treatment in pneumonia: and while the views of the most judicious physicians are not yet settled as to the precise value of various therapeutic agents in the treatment of pneumonia, we must examine with care the statements of the ultimate success obtained from various modes of practice, and even inquire into the immediate advantage resulting from the action of particular remedies; these therapeutic problems although both important, are still distinct.

The general method of treatment recommended by the author coincides with the experience of physicians in this country. We could have desired a more complete account of some peculiarities requiring modifications in a mode of treatment, apparently the best fitted to diminish the mortality and suffering. For in pneumonia, as in other acute diseases, it is important to impress upon the student the necessity of watching for peculiarities in the form of disease, and of modifying his practice in its different stages. Hence a mode of treatment, which seems sanctioned by reason and experience, may be productive of harm if applied without due discrimination.

At Dublin, one or two general bleedings are found sufficient. Now and then a severe inflammation may occur in a stout and young subject, in which blood-letting may be repeated with advantage, or may even become necessary; but in most cases one or two bleedings, proportioned to the severity of the disease, and to the strength of the patient, produce a sufficient impression if employed at the commencement of the disorder. After the first days, venesection must be sparingly practiced. General bleeding is chiefly advantageous in the sthenic form; that is, the active acute inflammation tending to secrete pus and lymph. Still the abstraction of blood rarely cuts short the disease, although it almost always lessens many of the constitutional symptoms, and relieves the patient, while it has a certain influence in shortening the disease and diminishing its mortality. Now this is the precise result obtained by all conscientious observers; at least our observation in America confirms the facts ascertained at Paris, and corroborated at Dublin. In the few cases in which the disease was entirely arrested, depletion was used very early.

The asthenic form of the disease, or typhoid pneumonia, (using the term in the extended signification given to it by Dr. Stokes,) not only does not require, but may be seriously injured by free blood-letting. Dr. Louis does not indicate the distinction between the two forms of pneumonia; and therefore his observations lose part of their positive value. In this form few practitioners now bleed from the arm, or do so very cautiously and generally after cupping has been premised. If a large bleeding be practised, an extraordinary prostration of strength speedily follows, from which the patient may recover with

difficulty. The ulterior effects of the remedy are far from being sufficiently advantageous in such cases, for us to risk the production of so great a degree of prostration. This kind of pneumonia has been extremely frequent at Philadelphia, during the present winter; and little advantage has resulted from large general bleeding; cases treated by local depletion, with stimulating expectorants, diaphoretics, and the mercurials, recovered with much greater rapidity.

Local is considered more efficacious than general bleeding; it is undoubtedly a most powerful remedy, although Dr. Stokes has perhaps an extreme partiality for this mode of depletion. It comes in most advantageously in the treatment of the asthenic, and in the latter stages of ordinary pneumonia, where the oppression is great, but the general feebleness prevents the abstraction of blood from the arm.

The practice at the Meath hospital is to use either the antimonials in large doses, or mercurials after the use of general and local bleeding. That is, the antimonial practice is next in power to blood-letting, to which it is rather an adjuvant than the principal remedy. With this proviso Dr. Stokes bestows the highest approbation on this mode of practice; he begins in doses of four to six grains in the twenty-four hours, and gradually increases to ten or twelve grains; it is rarely necessary to give more than from twenty-five to thirty grains during the treatment. With the phenomena of tolerance we presume our readers to be sufficiently acquainted; when the remedy is not borne without much uneasiness after two or three doses are taken, we rarely persevere in its administration. If the only symptom be a slight purging, it may be checked by a moderate quantity of opium. In the majority of cases, patients become accustomed to the use of the medicine, and actually regain their appetite while taking considerable doses of it. The remedy must be watched, and even when tolerated should not be continued too long: thus, if no sensible diminution occur during the course of the second or third day, we generally suspend the antimony; agreeing with Dr. Louis, that unless the good effects of the remedy are seen within the first forty-eight hours, but little advantage can be anticipated from it. If great depression follow its use, it should be immediately discontinued, or be given in very small quantities, especially if the patient be of a nervous temperament. If the brain be much affected and the sensibility of the patient diminished, there is a danger of ulceration, and therefore the precept of not continuing the remedy beyond a few days should be rigidly observed in such cases.

The mercurials answer best in the treatment of the asthenic form, and in the advanced stages of the ordinary pneumonia; in this city the practice is to give calomel in small quantities combined with ipecacuanha, and sometimes with opium, so as to excite a slight pyalism. Blisters are also very useful in these forms of disease, and although they are much less powerful in shortening the duration of the disease than blood-letting, are undoubtedly valuable remedies when the disease is still unresolved and the strength of the patient is failing.

Dr. Stokes is partial to another favourite American remedy; the Seneca snake-root combined with carbonate of ammonia. In the suppurative stage of the sthenic, and even in some of the early stages of the asthenic forms, we have derived benefit from tonics; these form a very useful remedy. In some cases of drunkards we have even ventured upon brandy punch and other stimulants with great advantage. The diaphoretics of a stimulating character are also amongst the more valuable remedies in the asthenic forms of pneumonia.

We have said much of the treatment of pneumonia, because we believe that a great part of the success of various practitioners will depend upon their distinguishing between the two forms of the disorder. In our clinical lectures we have long insisted upon the necessity of great care in this respect, and we are glad to find that Dr. Stokes is so fully aware of the importance of this point, which is comparatively overlooked by the French physicians.

Gangrene of the lungs is mentioned in rather a cursory manner by Dr. Stokes, who contents himself with giving a few brief cases. We shall pass over his account of it, and also that of carcinoma, proceeding to the more frequent, and therefore more important disease, tubercle of the lung.

The enumeration of the physical signs of tubercle is very complete, and indicates the extreme care with which Dr. Stokes has studied the subject. There are but two or three points which he has omitted or passed over very slightly. One is the mode in which the respiration becomes rough or imperfectly bronchial in the early stages of the disease, a condition which may accompany either a feeble or puerile respiration; and another is the imperfect account which he gives of the modification of the resonance of the voice very early in the disease. The frequent feebleness of the respiration on the right side of the chest is mentioned, but the author has not stated that there was also at the summit of the right side a very slight rude respiration in a large number of healthy individuals; now this circumstance must modify in an important manner the signs of commencing phthisis.

The physical signs of phthisis are, however, more useful in pointing out its exact course and progress, than in indicating with certainty that the disease is present at the very commencement of the tuberculous secretion. For, however great our skill in diagnosis may be, we cannot expect that we shall be able to distinguish the disease from the physical signs, except when its very earliest seat is in the lungs, and in a limited portion of the lungs only; tubercles in very small numbers cannot be detected unless they are congregated in a very small portion of the pulmonary parenchyma. When we inquire into the history of the tuberculous disease we find that the law of their earliest development in the lungs, though general is not universal, and that even in cases in which it holds good, the local diseases are insignificant compared with the disorder of the general system and rapid decline of the patients. Now the great object of refined diagnosis is to ascertain the signs indicative of this constitutional disturbance, and reduce them to a positive formula.

Although we lay the greatest stress upon these general symptoms,

we attach much importance to the negative value of the physical signs, as a means of proving to us that the lungs are not yet much affected. A discovery of this kind gives the physician strong ground for hope, although it does not allow him to affirm, in opposition to the evidence of general symptoms, that the patient is absolutely free from consumption. Such assertions are often most unhappily contradicted by the unexpected appearance of unequivocal consumption.

Dr. Stokes has, perhaps, not regarded it as within his plan to enter much into the diagnosis founded upon general signs. He has very graphically described the prominent varieties of phthisis; but it is rather with the view of affording facilities for diagnosis by means chiefly of the physical signs, than with the intention of rendering general symptoms immediately useful for this purpose. The chapter upon tubercles would have acquired additional value by bringing forward every sign which could throw the least light upon so obscure a subject as incipient phthisis. Without the most thorough acquaintance with the symptoms of the general tuberculous disorder we are led to study its ultimate effects rather than its commencement; with such a knowledge we still labour under difficulties; but we have a thread which will sooner or later guide us from the labyrinth. A careful study of the author's divisions and descriptions of the tuberculous diseases of the lungs will, in some measure, diminish this difficulty. He divides phthisis into the following varieties:

"1st. Acute inflammatory tuberculisat[i]on of the lung without suppuration. 2nd. Acute suppurative tuberculisat[i]on. 3d. Chronic progressive tubercle, with signs of local and general irritat[i]on; pulmonary ulceration. 4th. Chronic progressive ulceration succeeding to an unresolved pneumonia. 5th. Tuberculous ulceration succeeding to chronic bronchitis. 6th. Tubercle consequent on the absorption of an empyema. 7th. Chronic phthisis complicated with pneumo-thorax from fistula. 8th. Tubercle complicated with disease of the larynx. 9th. Latent progressive phthisis. 10th. Chronic latent but partial tuberculisat[i]on. 11th. Chronic general tuberculisat[i]on. 12th. Cicatrization of cavities."

Of these the acute inflammatory form, without suppuration, is the most formidable. Dr. Stokes has never witnessed it except as a sequel or complication of typhus. It generally occurred after the subsidence of the fever, a sort of interval occurring between the two affections. The same disease is a frequent consequence of typhoid fever; but it may occur without being preceded by either. In these cases of primary tuberculous disease, the violence of the fever, the profuse sweat, the rapid emaciation, and the frequent chills are better indications of the disease than the local signs, which are at first necessarily doubtful; for the tubercles are deposited under the form of granulations, which are disseminated throughout the lungs instead of being collected at the summit.

Frequently this tuberculous fever is not connected with much bronchitis, for the irritation of the bronchial mucous membrane is not always great in the early stages of the variety which begins without an obvious cause. When bronchitis is present, it differs from the usual form, in resisting all ordinary means, and rarely terminating in recovery. The only remedies of much avail, are those which modify the constitution in general, and which tend to check the pro-

fuse sweats, and exhausting fever. Hence the treatment which we have found most effectual is the use of the mineral acids; occasionally an opposite treatment consisting in the administration of tonic infusions with the addition of the carbonate of soda, combined with rather a generous diet, proves more useful. Local treatment is generally of little avail, because the local disease constitutes but a small part of the disorder, and even if the bronchial irritation be arrested, we may be far from checking the general tuberculous disorder.

In the last mentioned variety, the tubercles do not pass beyond their crude state, but the acute tuberculous disease may assume another form and pass rapidly into softening. These cases are generally dependent upon tuberculous infiltration of the lung, and often begin in the lower lobe. They constitute the variety of disease so common in this country among the negroes, and frequent in France amongst the wild animals kept in confinement at the menageries. It is, perhaps, the most intractable form of phthisis.

There is another variety of phthisis which may demand a modification in the treatment; it is that which is consequent upon an unresolved pneumonia. Although the ordinary pneumonia is not a frequent cause of phthisis, the asthenic variety is often immediately followed by its development. These cases demand continued counter irritation, and are almost the only instances of phthisis which may properly be treated by the mercurials.

The treatment of phthisis, as recommended by the author, is in accordance with the views generally received. The local irritation which so often attends it, should be removed by local depletion and other means of a similar character; and by a few appropriate general remedies and change of climate, we should attempt to modify the general constitution. Unfortunately this effort is, in the immense majority of cases, unsuccessful; still we believe that much may be done towards producing a cure in a small proportion of cases, and that we may greatly relieve the symptoms in a larger number.

The tuberculous diseases of children include an important part of the pathology of those affections: we regret that Dr. Stokes's plan did not include them. The key to the study of the general tuberculous disease may be found in the affection as it occurs in children, and by commencing the observation of the disease as it occurs in early life, we become familiar with many facts of importance for its diagnosis.

The diseases of the pleura are of less difficult diagnosis than those of the lung, and do not require the same minute examination. With them terminates the interesting work of Dr. Stokes; a second part will probably include the diseases of the heart.

W. W. G.